WHAT IS CLAIMED IS:

1. A method for processing image information, the method comprising:

receiving an image in a first color space, said first color space including primary and secondary channels;

storing information describing a second color space, said second color space including primary and secondary channels, said primary channel of said second color space corresponding to the primary channel of said first color space; and

transforming the image into said second color space, including:

interpolating the primary channel of said second color space to full resolution, and

computing the secondary channels of said second color space as differences from the primary channel.

2. The method of claim 1, wherein the primary channel for both said first and said second color spaces comprises predominantly Green (G).

3. The method of claim 2, wherein said first color space comprises an RGB color space and said second color space comprises a GUV color space.

4. The method of claim 1, wherein the secondary channels of the first color space comprise predominantly Red (R) and Blue (B).

5. The method of claim 1, wherein the image is initially captured at a sensor employing an RGB mosaic.

6. The method of claim 5, wherein said sensor employs a mosaic configured as a Bayer pattern.

7. The method of claim 1, further comprising:

after the image is transformed into said second color space, compressing the transformed image.

8. The method of claim 7, wherein said compressing step includes:

compressing the transformed image using transform-based compression.

9. The method of claim 8, wherein said transform-based compression comprises wavelet transform-based compression.

10. The method of claim 8, wherein said transform-based compression comprises DCT- (discrete cosine transformation) based compression.

11. The method of claim 7, wherein said second color space comprises GUV color space having individual G, U, and V planes and said compressing step comprises individually compressing each plane.

12. The method of claim 7, further comprising:

transmitting the compressed, transformed image to a target platform.

13. The method of claim 12, wherein said target platform comprises a computing device.

14. The method of claim 12, wherein said transmitting step includes:

transmitting the compressed, transformed image to a selected one of a desktop computer and a server computer.

15. The method of claim 12, wherein said transmitting step is performed using wireless transmission.

16. The method of claim 12, wherein said transmitting step is performed using wire-line transmission.

17. The method of claim 12, further comprising:

restoring said compressed, transformed image at the target platform to a non-compressed format.

18. The method of claim 17, further comprising:

transforming the non-compressed image into a standard-format color image.

19. The method of claim 18, wherein said standard-format color image comprises a JPEG-formatted color image.

20. The method of claim 17, further comprising:

transforming the non-compressed image into YUV color space.

21. The method of claim 17, further comprising:

transforming the non-compressed image into RGB color space.

22. The method of claim 1, wherein said interpolating step includes applying averaging technique.

23. The method of claim 7, further comprising:

further compressing the image by applying quantization and entropy coding.

24. The method of claim 23, wherein said entropy coding comprises Huffman coding.

25. The method of claim 12, wherein said transmitting step occurs before the

primary channel of the second color space is interpreted to full resolution for the image.

26. A method for transforming RGB image information into an efficient color space representation, the method comprising:

receiving an image in a first color space, said first color space comprising an RGB color space having a primary channel comprising Green (G) and secondary channels comprising Red (R) and Blue (B);

storing information describing a second color space having primary and secondary channels, said primary channel of said second color space comprising Green (G); and

transforming the image into said second color space, including:

interpolating the primary channel of said second color space to full resolution, and

computing the secondary channels of said second color space as differences from the primary channel.

27. The method of claim 26, wherein Green (G) incorporates colors that are substantially green.

28. The method of claim 27, wherein said second color space comprises a GUV color space.

29. The method of claim 26, wherein the image is initially captured at a sensor employing an RGB mosaic.

30. The method of claim 29, wherein said sensor employs a mosaic configured as a Bayer pattern.

31. The method of claim 26, further comprising:

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after the image is transformed into said second color space, compressing the transformed image.

32. The method of claim 31, wherein said compressing step includes:
    compressing the transformed image using transform-based compression.

33. The method of claim 32, wherein said transform-based compression comprises wavelet transform-based compression.

34. The method of claim 32, wherein said transform-based compression comprises DCT- (discrete cosine transformation) based compression.

35. The method of claim 31, wherein said second color space comprises GUV color space having individual G, U, and V planes and said compressing step comprises individually compressing each plane.

36. The method of claim 31, further comprising:
    transmitting the compressed, transformed image to a target platform.

37. The method of claim 36, wherein said target platform comprises a computing device.

38. The method of claim 36, wherein said transmitting step includes:
    transmitting the compressed, transformed image to a selected one of a desktop computer and a server computer.

39. The method of claim 36, wherein said transmitting step is performed using wireless transmission.

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40. The method of claim 36, wherein said transmitting step is performed using wire-line transmission.

41. An imaging system providing deferred image processing, the system comprising:

an imager having a sensor for capturing an image in RGB color space;

a transformation module for transforming the image into a second color space, said second color space having primary and secondary channels, said image being transformed such that the primary channel of said second color space is interpolated to full resolution, and the secondary channels of said second color space are computed as differences from the primary channel;

a compression module for compressing said transformed image, for generating compressed, transformed image information at the imager;

a communication link for transmitting said compressed, transformed image information to a target device; and

a decompression module for decompressing said compressed, transformed image information at the target device, whereupon the transformed image may thereafter be processed into a color image.

42. The system of claim 41, wherein said communication link comprises a wireless communication link.

43. The system of claim 41, wherein said compressed, transformed image information includes luminosity information for the image captured at the imager.

44. The system of claim 41, wherein said compression module includes:

a transform-based compression module for compressing the transformed image information at the imager.

45. The system of claim 44, wherein said transform-based compression module applies wavelet transform-based compression.

46. The system of claim 44, wherein said transform-based compression module applies DCT- (discrete cosine transform) based compression.

47. The system of claim 44, further comprising a transform-based decompression module for reversing transform-based compression that has been applied at the imager.

48. The system of claim 41, wherein said communication link transmits said compressed, transformed image information in a wire-based manner.

49. The system of claim 48, wherein said communication link transmits said compressed, transformed image information using a serial communication port.

50. The system of claim 41, wherein said target device includes:

an interpolation module for interpolating color information for the image from said compressed, transformed image information.

51. The system of claim 50, wherein said interpolation module applies a YUV transformation to said transformed image at the target device for converting said transformed image into a color image in YUV color space.

52. The system of claim 41, wherein said target device further includes:

a compression module of the target device for converting the color image into a standard-compressed file format at the target device.

53. The system of claim 52, wherein said standard-compressed file format

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comprises a JPEG file format.

54. The system of claim 52, wherein said compression module of said target device includes a JPEG module for applying JPEG compression to the color image at the target device.

55. The system of claim 41, wherein said imager comprises a digital camera, wherein said target device comprises a computer, and wherein said communication link is coupled to a cellular phone device for transmitting said compressed, transformed image information from said digital camera to said computer in a wireless manner using a communication protocol.

56. The system of claim 55, wherein said communication link is selectively coupled to the cellular phone for establishing a wireless communication session between the digital camera and the computer.

57. The system of claim 41, wherein said target device comprises a computer with connectivity to the Internet, which provides access to the color image to multiple users.

58. The system of claim 41, wherein said communication link transmits said compressed, transformed image information by first transmitting a lower-quality representation of the image captured at the imager.

59. The system of claim 58, wherein said lower-quality representation of the image is converted into a higher-quality representation at a later point in time.

60. The system of claim 58, wherein said lower-quality representation of the image is converted into a higher-quality representation by synchronizing said lower-quality representation with said higher-quality representation.